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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,758	12/11/2003	Keith D. Weiss	11745-025	1997

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EXAMINER	
FERGUSON, MARISSA L	

ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/734,758	WEISS ET AL.	
	Examiner	Art Unit	
	Marissa L. Ferguson-Samreth	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-22 and 24-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24-34* is/are allowed.

6)☒ Claim(s) *11-22 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-13, 15 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776) and Tazaki (US Patent 6, 964, 806).

With respect to claims , 11-13, 15 and 35, Thakrar et al. teaches an ink with added thixotropic agents that are used to imprint patterns on one or both sides of a lens casting mold (Column 3, Lines 33-37 and Column 4, Lines 26-39) and the patterns may be applied to the sides of the lens by printing methods such as jet spray, silk screen, laser printing, etc. (Column 5, Lines 3-6). However, he does not explicitly disclose a plastic substrate and a thixotropic network magnitude of between $3x10^{4}$ and $6x10^{5}$ dynes/cm^{2}-sec^{-1}, a thixotropic network strength of at least 35.0 gm-cm and thixotropic creep viscosity of between $8x10^{2}$ to $9x10^{4}$ poise and a tan ratio of at least 1 and at least 99% retention. Li et al. teaches a mold that made from a material selected from the group consisting of polyvinyl chloride, polycarbonate and polyester (Column 10, Claim 10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Thakrar et al. to replace the

mold thereof with a plastic mold as taught by Li et al., since Li et al. teaches that it is advantageous for providing an economical way to improve manufacturing quality of contact lenses.

However, Thakrar et al. and Li et al. do not teach at least 99% retention of ink. Tazaki teaches a molding with an ink layer with a retention of at least 80%, 90% and most preferably 95% (Column 4, Lines 53-55), 95% can be considered to be about 99%. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Thakrar et al. and Li et al. to include a retention layer with at least about 99% as taught by Tazaki et al., since Tazaki et al. teaches that it is advantageous to provide a high retention in order to prevent poor adhesion, deformation, discoloration and durability.

Thrakrar et al., Li et al. and Tazaki et al. do not teach a thixotropic network magnitude of between $3x10^{4}$ and $6x10^{5}$ dynes/cm^{2}-sec^{-1}, a thixotropic network strength of at least 35.0 gm-cm and thixotropic creep viscosity of between $8x10^{2}$ to $9x10^{4}$ poise and a tan ratio of at least 1 (note claim language "for membrane transfer" is functional language).

It is common knowledge that thixotropic inks have the claimed qualities such as strength, magnitude and creep viscosity to form a strong-based resistant ink as disclosed by Thakrar et al. (Column 4, Lines 8-10). Also, it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Aller, 105 USPQ 233***. It would have been obvious to provide and test the claimed ranges, since such a

modification would result in finding the correct qualities in order to prevent running of the ink when applied to a surface of a mold.

2. Claims 14,16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776) and Tazaki et al. (US Patent 6, 964, 806) as applied to claim 11 above, and further in view of Shimokuni (US Patent 5,727,459).

Regarding claims 14,16 and 17, Thakrar et al., Li et al. and Tazaki et al. all teach the claimed invention including a synthetic resin (Column 3, Lines 33-37 and Column 14, Lines 14-17) as taught by Thakrar. However, the prior art does not explicitly disclose a polymeric resin including at least one of a polycarbonate resin, a PVC resin, a polyester resin, an acrylic resin, a vinyl resin, a cellulosic resin, an alkyd resin, a formaldehyde derived resin, an epoxy resin, a polyurethane resin, a silicone resin, a silicate resin, an amino resin, a polyamide resin,a phenolic resin and a hydrocarbon solvent including at least one of an aliphatic hydrocarbon, an aromatic hydrocarbon, a naphthenic hydrocarbon, a chlorinated hydrocarbon, a terpene solvent, an oxygenated solvent, ketones, an ester, a glycol ether, an alcohol. an acetate, a nitroparaffin, a furan or solvent having a predetermined evaporation rate. Shimokuni teaches printing on a plastic surface using a screen/pad printing ink using a base such as aromatic, ketone, alcohol and ester hydrocarbon solvents (Abstract and Column 11, Lines 26-38) and a resin including a vinyl chloride resin, polyester resin and a cellulose resin (Column 11, Lines 26-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al. and Tazaki et al. to replace the ink and resin thereof with an ink with a hydrocarbon and a resin with an additional filler as taught by Shimokuni, since Shimokuni teaches that it is advantageous to have an ink and a resin with added fillers and bases in order to improve wettability and optimize viscosity.

Regarding claim 18, Thakrar et al. teaches a thixotrope including a fumed silica (Column 7, Lines 40-45).

3. Claims 19,20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776), Tazaki et al. (US Patent 6, 964, 806) and Shimokuni (US Patent 5,727,459)as applied to claim 14 above, further in view of Komori et al. (US Patent 4,835,576) and Al'Hariri (US Patent 4,910,070).

Regarding claims 19 and 22, Thakrar et al., Li et al, Tazaki et al. and Shimokuni all teach the invention claimed with the exception of an ink comprising a pigment disposed in the ink for opacity or color, an additive to disperse the pigment the additive including a surfactant, a dispersant, or mixtures thereof and a catalyst to initiate cross-linking between polymer chains in the resin. Komori et al. teaches an ink containing an opaquing pigment and a surfactant (Column 9, Lines 57-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al., Tazaki et al. and Shimokuni to replace the ink thereof with an ink with an

opaque pigment as taught by Komori et al., since Komori et al. teaches that it is advantageous to provide light-transmissable and/or reflectable areas for constituting an image on a lith type film.

However, he does not disclose a catalyst including at least one of an isocyanate, a metal drier, an acid, a base or a peroxide. Al'Hariri teaches an acid catalyst for use in polymer inks for initiating cross-linking (Column 4, Lines 3-7, Lines 34-40 and Column 5, Lines 23-25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al., Tazaki et al. and Shimokuni to replace the ink thereof with an ink with a catalyst as taught by Al'Hariri to provide a more aesthetically appearance.

Regarding claim 20, Thakrar et al. teaches a pigment including phthalocyanine blue, phthalocyanine green and titanium dioxide (Column 3, Lines 3-4).

4. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776), Tazaki et al. (US Patent 6, 964, 806), Shimokuni (US Patent 5,727,459), Komori et al. (US Patent 4,835,576) and Al'Hariri (US Patent 4,910,070) as applied to claim 19, further in view of Fry (US Patent 5,456,743).

Thakrar et al., Li et al., Tazaki et al. Shimokuni, Komori et al. and Al'Hariri all teach the claimed invention with the exception of a surfactant including at least one of the following a metallic soap, a sulfonate, a phosphate ester, a fatty acid ester, a fluoroaliphatlc polymeric ester, a titanate coupling agent, a ziconate coupling agent, an

aluminate coupling agent, an organomodified polysiloxane, a block copolymers of poly(alkylene oxide), a hyperdispersants, a base neutralized fatty alcohol sulfate, a polyamino-amide phosphate, or carbtxyllc acid. Fry teaches a fatty acid surfactant (Column 7, Lines 56-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al., Tazaki et al. Shimokuni, Komori et al. and Al'Hariri to replace the ink thereof with an ink with fatty acid ester surfactant as taught by Fry, since Fry teaches that it is advantageous to reduce the melt viscosity and release air trapped by the powdery components of the ink composition.

5. Claims 24-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776) and Suzuki et al. (JP 57170843).

Regarding claims 24-27, Thakrar et al. teaches an ink with added thixotropic agents that are used to imprint patterns on one or both sides of a lens casting mold (Column 3, Lines 33-37 and Column 4, Lines 26-39). However, he does not explicitly disclose a plastic substrate and a thixotropic network magnitude of between $3x10^{4}$ and $6x10^{5}$ dynes/cm^{2}-sec^{-1}, a thixotropic network strength of at least 35.0 gm-cm and thixotropic creep viscosity of between $8x10^{2}$ to $9x10^{4}$ poise and a tan ratio of at least 1 and applying a printed decoration through a screen to a membrane, defining the membrane image on the membrane, forming the membrane to the geometry of the surface to the substrate, adhering the membrane image to the substrate by pressing the

membrane and the article together in forced contact, maintaining pressure between the membrane and the substrate to transfer the membrane image from the membrane to the substrate and separating the membrane from the substrate..

Li et al. teaches a mold that conforms to the geometry of a lens (Column 5, Lines 28-30) and a mold that is made from a material selected from the group consisting of polyvinyl chloride, polycarbonate and polyester (Column 10, Claim 10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Thakrar et al. to replace the mold thereof with a plastic mold as taught by Li et al., since Li et al. teaches that it is advantageous for providing an economical way to improve manufacturing quality of contact lenses.

However, Thraker et al. and Li et al. do not teach applying a printed decoration through a screen to a membrane, defining the membrane image on the membrane, forming the membrane to the geometry of the surface to the substrate, adhering the membrane image to the substrate by pressing the membrane and the article together in forced contact, maintaining pressure between the membrane and the substrate to transfer the membrane image from the membrane to the substrate and separating the membrane from the substrate (note that the added claim language "for membrane transfer" is functional language). Suzuki et al. teaches the steps of applying a printed decoration through a screen to a film, defining and printing the image on the film, forming and pressuring the geometry of the glass surface to the film, adhering the image with epoxy to the film by pressing the film and the article together in forced

contact, maintaining pressure between the film and the substrate to transfer the image from the film to the substrate and separating the film from the substrate (Abstract and Constitution).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Thakrar et al. to include a decoration through a screen and pressure as taught by Suzuki et al., since Suzuki et al. teaches that it is advantageous to form a brilliant three dimensional decoration on a substrate.

However, Thakrar et al., Li et al. and Suzuki et al. do not teach a thixotropic network magnitude of between $3x10^4$ and $6x10^5$ dynes/cm^2-sec^{-1}, a thixotropic network strength of at least 35.0 gm-cm and thixotropic creep viscosity of between $8x10^2$ to $9x10^4$ poise and a tan ratio of at least 1. It is common knowledge that thixotropic inks have the claimed qualities such as strength, magnitude and creep viscosity to form a strong-based resistant ink as disclosed by Thakrar et al. (Column 4, Lines 8-10). Also, it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Aller, 105 USPQ 233***.

It would have been obvious to provide and test the claimed ranges, since such a modification would result in finding the correct qualities in order to prevent running of the ink when applied to a surface of a mold.

Regarding claim 29, Thakrar et al. teaches a thixotrope including a fumed silica (Column 7, Lines 40-45).

6. Claims 28,30 rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776) and Suzuki et al. (JP 57170843) as applied to claim 24 above, and further in view of Shimokuni (US Patent 5,727,459).

Thakrar et al., Li et al. and Suzuki et al. all teach the claimed invention including a synthetic resin (Column 3, Lines 33-37 and Column 14, Lines 14-17) as taught by Thakrar et al.. However, the references do not explicitly disclose a polymeric resin including at least one of a polycarbonate resin, a PVC resin, a polyester resin, an acrylic resin, a vinyl resin, a cellulosic resin, an alkyd resin, a formaldehyde derived resin, an epoxy resin, a polyurethane resin, a silicone resin, a silicate resin, an amino resin, a polyamide resin,a phenolic resin and a hydrocarbon solvent including at least one of an aliphatic hydrocarbon, an aromatic hydrocarbon, a naphthenic hydrocarbon, a chlorinated hydrocarbon, a terpene solvent, an oxygenated solvent, ketones, an ester, a glycol ether, an alcohol. an acetate, a nitroparaffin, a furan or solvent having a predetermined evaporation rate. Shimokuni teaches printing on a plastic surface using a screen/pad printing ink using a base such as aromatic, ketone, alcohol and ester hydrocarbon solvents (Abstract and Column 11, Lines 26-38) and a resin including a vinyl chloride resin, polyester resin and a cellulose resin (Column 11, Lines 26-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al. and Suzuki et al. to replace the ink and resin thereof with an ink with a

hydrocarbon and a resin with an additional filler as taught by Shimokuni, since Shimokuni teaches that it is advantageous to have an ink and a resin with added fillers and bases in order to improve wettability and optimize viscosity.

7. Claims 31,32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776), Suzuki et al. (JP 57170843) and Shimokuni (US Patent 5,727,459) as applied to claim 24 above, further in view of Komori et al. (US Patent 4,835,576) and Al'Hariri (US Patent 4,910,070).

Regarding claims 31 and 34, Thakrar et al., Li et al., Suzuki et al. and Shimokuni all teach the invention claimed with the exception of an ink comprising a pigment disposed in the ink for opacity or color, an additive to disperse the pigment the additive including a surfactant, a dispersant, or mixtures thereof and a catalyst to initiate cross-linking between polymer chains in the resin. Komori et al. teaches an ink containing an opaquing pigment and a surfactant (Column 9, Lines 57-65). However, he does not disclose a catalyst including at least one of an isocyanate, a metal drier, an acid, a base or a peroxide. Al'Hariri teaches an acid catalyst for use in polymer inks for initiating cross-linking (Column 4, Lines 3-7, Lines 34-40 and Column 5, Lines 23-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al. and Suzuki et al. to replace the ink thereof with an ink with an opaque pigment as taught by Komori et al., since Komori et al. teaches that it is advantageous to provide light-transmissable and/or reflectable areas for constituting an image on a lith type film and to

replace the ink thereof with an ink with a catalyst as taught by Al'Hariri to provide a more aesthetically appearance.

Regarding claim 32, Thakrar et al. teaches a pigment including phthalocyanine blue, phthalocyanine green and titanium dioxide (Column 3, Lines 3-4).

8. Claims 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thakrar et al. (US Patent 6,284,161) in view of Li et al. (US Patent 6,565,776), Suzuki et al. (JP 57170843), Shimokuni (US Patent 5,727,459), Komori et al. (US Patent 4,835,576) and Al'Hariri (US Patent 4,910,070) as applied to claim 19, further in view of Fry (US Patent 5,456,743).

Thakrar et al., Li et al., Suzuki et al., Shimokuni, Komori et al. and Al'Hariri teaches the claimed invention with the exception of a surfactant including at least one of the following a metallic soap, a sulfonate, a phosphate ester, a fatty acid ester, a fluoroaliphatlc polymeric ester, a titanate coupling agent, a ziconate coupling agent, an aluminate coupling agent, an organomodified polysiloxane, a block copolymers of poly(alkylene oxide), Hypermee, Solsperse@, a hyperdispersants, a base neutralized fatty alcohol sulfate, a polyamino-amide phosphate, or carbtxyllc acid. Fry teaches a fatty acid surfactant (Column 7, Lines 56-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Thakrar et al. in view of Li et al., Suzuki et al., Shimokuni, Komori et al. and Al'Hariri to replace the ink thereof with an ink with fatty acid ester surfactant as taught

by Fry, since Fry teaches that it is advantageous to reduce the melt viscosity and release air trapped by the powdery components of the ink composition.

Response to Arguments

9. Applicant's arguments with respect to claims 11-22 and 24-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson-Samreth whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other(F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marissa L Ferguson-Samreth
Examiner
Art Unit 2854

MFS

Daniel J. Colilla
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